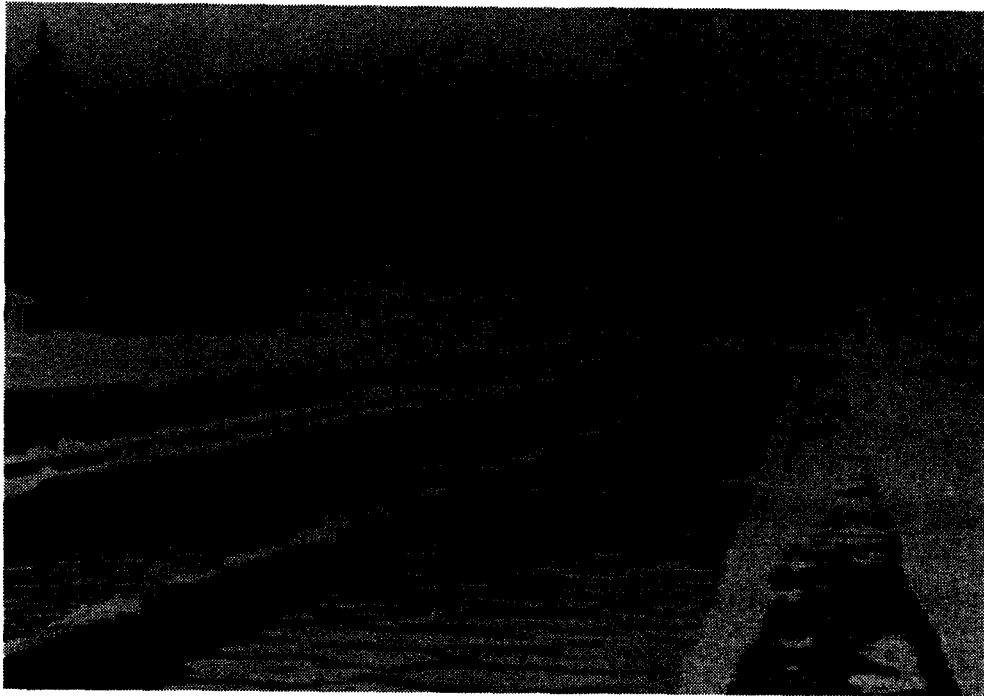




CLARK FORK HATCHERY ANNUAL REPORT

October 1, 1985 to September 30, 1986



by
Gene McPherson
Fish Hatchery Superintendent II

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ABSTRACT

Clark Fork Hatchery produced over two million fish this past year, primarily kokanee and westslope cutthroat. Approximately ten million kokanee eggs were collected at Sullivan Springs. Twenty-nine mountain lakes were stocked and 123,764 catchable rainbows were stocked in northern Idaho waters.

Author:

Gene McPherson
Fish Hatchery Superintendent II

OBJECTIVES

The objectives of Clark Fork Hatchery are:

1. To raise westslope cutthroat broodstock and plant 350,000 size 2 fish annually.
2. To take as many westslope cutthroat eggs as possible and plant as many first-feeding fry in Priest Lake as possible.
3. To take as many kokanee eggs as possible at the Sullivan Spring facility.
4. To redistribute catchable rainbow trout to streams, lakes and reservoirs of Region 1.
5. To stock approximately 30 mountain lakes annually.

INTRODUCTION

Clark Fork Hatchery is a state-owned, license-funded facility located 1.7 miles north of the town of Clark Fork on Spring Creek Road.

The water supply for the facility comes from Spring Creek, and the hatchery needs approximately 8 cfs to operate. There are also two small wells capable of 80 gallons per minute each that provide water for the incubators and the early-rearing troughs. The hatchery has four large raceways measuring 12 ft x 319 ft, three sections per raceway with approximately 2,470 cu ft of rearing space per section, with a flow of 1.45 cfs per pond. There are two medium-sized raceways measuring 6 ft x 116 ft, and six small raceways measuring 6 ft x 53 ft with 540 cu ft of rearing space, with flows of 0.33 cfs. Clark Fork Hatchery also has four earth broodstock ponds, three sections per pond, with 2,202 cubic feet of rearing space per section, with flows of 1 cfs each. Inside the hatchery building, there are 10 double stacks of Heath incubators containing 16 trays each. Inside, early-rearing containers include 10 concrete vats 60.5 cubic feet each with flows of 0.12 cfs each, and 17 fiberglass troughs, 16.6 cubic feet each with flows of 0.025 cfs.

The water fluctuates from 14 cfs to a low of 3 cfs during late summer and early fall, resulting in less than full production capabilities. In addition to the hatchery, there is a kokanee trapping and spawning facility at Sullivan Springs on Granite Creek approximately 30 miles from the hatchery site. This facility is capable of producing 10 to 12 million eggs annually.

EGG PRODUCTION

Table 1. Clark Fork Hatchery egg production

Kokanee (Late-Spawning)

Green eggs	10,543,238	
Shipped	4,003,061	(Mullan)
Shipped	6,540,177	(Cabinet Gorge)
Kept	0	
Received (eyed)	1,566,444	(from Mullan)
Average eggs/female	350	

Westslope Cutthroat

Kerr Lake Stock, Four-Year-Old

Green eggs	949,053
Eyed eggs	550,450
Eye-up percent	58
Average eggs/female	888

Fish Lake Stock, Three-Year-Old

Green eggs	769,712
Eyed eggs	184,731
Eye-up percent	24
Average eggs/female	505

Wild Kamloops

Green eggs	16,672
Eyed eggs	9,836
Eye-up percent	59
Average eggs/female	5,557

FISH HEALTH

The following disease problems were diagnosed at Clark Fork Hatchery this past year: bacterial kidney disease and IPN virus.

In September, the age 1+ production fish were incurring higher than normal losses. Upon examination, bacterial kidney disease was diagnosed. A 21-day feed treatment of 4.5% Gallimycin was recommended. The treatment, coupled with cooler water temperatures, brought the mortality back to normal levels.

At this same time, IPNV was diagnosed in one vat of Westslope cutthroat fry. Above normal, but not excessive, loss was noted.

FISH RELEASES

Table 2. Fish releases from Clark Fork Hatchery.

Species	Number	Pounds	Destination
R4 catchables	123,764	35,340	Lowland lakes and streams
C2 fry	169,696	48.29	Blacktail and Cache creeks
C2 fry	33,839	11.23	Mountain lakes
C2 fingerlings	342,930	6,870	Priest and Hayden lakes
C2 broodstock	6,950	1,750	Mirror Lake
KL fry	1,391,860	796	Priest Lake, Sullivan Springs
K2 fry	3,864	29.5	Hatchery release
BN fingerlings	470,411	2,701.5	Spokane River and Priest River
BK fingerlings	26,845	355	Lowland lakes
GN fry	1,255	0.25	Parker Lake
BA fingerlings	<u>4,000</u>	<u>28.5</u>	Hayden Lake
Totals	2,575,414	47,930.27	

Table 3. Fish received at Clark Fork Hatchery.

Species	Number	Pounds
R4	128,580	41,640
BN	587,270	3,720
BK	27,000	357
GN	1,255	0.25

Table 4. Fish transferred from Clark Fork Hatchery

Species	Numbe	Destination
C2 fry	25,55	Cabine Gorge, Mullan, EP
C2 fingerlings	130	EPA
BA (commercial)	4,000	Hayden Lake

Table 5. Fish on hand September 30, 1986.

Species	Number	Pounds
C2 broodstock	35,122	5,154
C2 production	387,596	3,184
K2 fry	7,950	22.3

EXPERIMENTS

There were no fish culture-related experiments conducted at Clark Fork Hatchery this year due to the construction activity in and around the hatchery building.

FISH FEED UTILIZED

Table 6. Fish feed utilized at Clark Fork Hatchery.

Type	Pounds	Conversion	Cost
Clear Springs dry	2,200	maintenance	\$357.28
OMP OP-4 moist	8,500	1.8	\$8,517.50
OMP semi-moist	100	experimental	\$62.00

HATCHERY IMPROVEMENTS

There were some much-needed improvements completed this past year at Clark Fork Hatchery. Two wells were drilled, capable of 160 gallons per minute, to provide enough water for 10 double stacks of Heath incubators and 16 early fry-rearing troughs. The 6-in. header pipe in the incubator room was replaced with PVC piping and valves. Pressure valves were installed so the spring would automatically take over in case of a power outage or pump failure. These pressure valves were also installed on the supply line feeding the hatchery troughs. A 600-gal. water tower with a packed column was installed as an in-line backup water storage and degassing chamber. This improvement eliminates silt and algae buildup in the incubators and early rearing vats, resulting in better egg and fry survival.

All of the buildings on the hatchery grounds received a new coat of paint. The garage for Residence 2 received a new, painted, steel roof.

Trout Unlimited donated over \$900 for weir improvements at the Sullivan Springs kokanee trap site. The trap structure was revamped for improved operation and reduced maintenance. A larger trailer was obtained and remodeled for the trap tender's quarters. These improvements make for a more efficient and comfortable operation.

HATCHERY NEEDS

The screen on the supply pond was deleted from this past year's improvements and is still in need of replacement.

Residences 1 and 3, plus the garage for Residence 1, all need new, painted steel roofs. Residence 2 needs to be totally replaced. If it is not replaced, it should be re-roofed with painted steel, and rewired. The settling pond needs to be dredged, and the hatchery building needs to be replaced.

MISCELLANEOUS

A V-trap was installed in Spring Creek just below the hatchery to capture Kamloops adults. This operation was fairly successful as we captured everything that returned to Spring Creek to this point. Eight fish were captured: four females and four males. Three of the females were spawned, and 16,000 eggs were taken. Eye-up was just over 50% due to the silt and algae present in the incubator water supply.

The hatchery work load increased considerably during this year's planting season. The catchable rainbow trout plants increased from 60,000-70,000 to 123,000; plus, we got the mountain lakes formerly planted from the Sandpoint facility. The Cabinet Gorge Hatchery crew assisted with planting about one-half of the mountain lakes on the schedule.

The brown trout experienced heavy losses during transport from southern hatcheries, so next years eggs will be shipped to Clark Fork Hatchery for rearing.

There was a personnel shuffle this year at Clark Fork Hatchery in December of this fish year. Bruce Thompson was promoted and moved to Grace Hatchery. Doug Ramsey was also promoted and moved to the Mackay Hatchery. Dan Beers moved to Clark Fork Hatchery following the closure of Sandpoint Hatchery. This shuffle resulted in the loss of one permanent position at Clark Fork Hatchery, and a greatly increased work load as we picked up Sandpoint Hatchery's production and planting area.

The new Cabinet Gorge facility was brought on-line in December. The Clark Fork Hatchery crew spent considerable time building incubators, etc., for this new facility.

ACKNOWLEDGMENTS

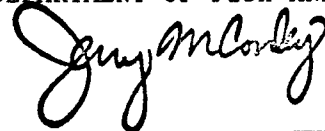
Hatchery staff for the year included: Gene McPherson, Fish Hatchery Superintendent II; Dan Beers, Fish Hatchery Superintendent I; Karl Neumann, Clarence Catt, and Bill Carter, laborers; Phillip Franc and Sunny Shelmidine, SYEP.

Submitted by:

Gene McPherson
Fish Hatchery Superintendent II

Approved by:

IDAHO DEPARTMENT OF FISH AND GAME



Jerry M. Conley, Director



David L. Hanson, Chief
Bureau of Fisheries



Steven M. Huffaker
Fish Hatcheries Manager